

## Remarks

Reconsideration and allowance of the above referenced application are respectfully requested.

Claims 1, 3, 5, 6, 11, 36, 45 and 51 stand rejected under 35 USC 103 as allegedly being on patentable over Freund in view of O'Kane. With all due respect, applicants respectfully disagree with the basis for this rejection. However, in order to further emphasize the patentable distinctions over the cited prior art, applicants herewith amend claim 1 to define additional aspects that further distinguish over the cited prior art.

Specifically, as disclosed in the specification on page 17, the individual pixels can be held within the reflector using the uncut scintillator material. This uncut scintillator material is also called the bridge. This is not taught or suggested by the cited prior art. In fact, Freund does show scintillator pixels which are partly held together in figure 4. There is no showing, however, that the scintillator pixels could be held within a preformed reflector by pressing against a bridge of uncut material between these parts. In fact, the drawing of figure 4, does not show any uncut scintillator material between these pixels. The drawing shows flexing between the pixels, and

this drawn flexing would not be possible if there was uncut scintillator material between the pixels, as claimed. Nothing in the disclosure of Freund says anything about a bridge of uncut scintillator material, much less using this bridge to hold the array of pixels to the reflector, as claimed. This produces the special advantage of holding the pixels together and also allowing placing those pixels in a special way. The prior art does not teach these advantages.

Claim 1 should be allowable for these reasons.

In addition, claim 2 has been completely changed to recite that the preformed reflector is a two-dimensional array of pixels of scintillator material with said bridge, that two-dimensionally holds the pixels together and also two dimensionally holds the scintillator material within the preformed reflector. For reasons set forth herein, this is not taught or suggested by the cited prior art.

The two-dimensional embodiment was previously rejected based on Freund in view of O'Kane, and further in view of Venkataramamani. The rejection admits that Freund does not show a two-dimensional array, but states that Venkataramamani shows a two-dimensional array of this type. However, while Venkataramamani does disclose the two-dimensional arrays of scintillator material are usable, it says nothing about how one

would form a two-dimensional array with a bridge portion of uncut material, and use that uncut material to hold the scintillators in place. In fact, Freund says nothing about a two-dimensional array, and the rejection is apparently taking the teaching from Venkataramamani that two-dimensional arrays could be used. However, nothing in any of Freund, O'Kane, or Venkataramamani, no matter how combined, provide any teaching of using a two-dimensional array of scintillator material by placing it in a preformed reflector, and having the bridge portion of material hold it within the reflector, where that bridge is formed of uncut scintillator material. The hypothetical combination quite simply lacks any teaching of this subject matter.

Therefore, claims 1 and 2 should be allowable for these reasons, along with the claims that depend therefrom.

Claim 17 depends from claim 1, and further defines that the first shape forms a tapered end that is tapered in two separate directions and is held in place by corresponding surfaces on the preformed reflector (as described in the specification on page 20). This two-dimensional taper holds the pixel within the taper in an improved way that is not taught or suggested by the cited prior art. Nothing in the cited prior art teaches or suggests this technique of holding an element within a

reflector, and hence claim 17 should be additionally allowable for these reasons.

Claim 9 was rejected over Freund in view of DiBianca and Skillicorn. This contention is respectfully traversed. Claim 9 defines that the preformed reflector has inner surfaces that contain the scintillator material, and has been amended to emphasize that a protrusion is formed as part of the inner surfaces of the preformed reflector that form a spacer to form the air gap.

That is, the air gap is automatically formed from a specified structure of the preformed reflector.

The rejection cites both DiBianca and Skillicorn to show the air gaps. DiBianca teaches that an air gap may be useful in this kind of situation. Skillicorn teaches aligning the placement of scintillator elements using stretched wires. However, neither DiBianca nor Skillicorn in any way teach or suggest a protrusion formed of a spacer formed as part of the inner surfaces of the preformed reflector. DiBianca forms his air gap from adhesive material. This is entirely different from a reflector formed from a protrusion on the preformed reflector that allows an air gap. DiBianca would hence require the extra step of depositing that adhesive material in place to form the air gap.

In fact, claim 9, which defines a protrusion forming a spacer to form the air gap, is much simpler than DiBianca's system of using the adhesive to form the air gap. In contrast to DiBianca's necessity to add the adhesive as a separate step, claim 9 simply allows forming a protrusion which automatically forms an air gap. This is not suggested by any of the cited prior art, and provides a significant simplicity as compared therewith - that simplicity not being fairly expected from any of that prior art.

Claim 16 was rejected over Freund in view of O'Kane and further in view of Hoffman. However, nothing in the cited prior art teaches a preformed reflector with different materials of the reflector formed of different materials. In fact, while Hoffman discloses that different scintillator materials could be used for different purposes, he teaches nothing about using different materials within pixels of a preformed reflector, as claimed.

Claim 37 has been amended to add a bridging portion between portions of the two-dimensional array. As described above with respect to claims 1 and 2, none of the cited prior art teaches or suggests such a bridging portion.

Claim 44 has been amended in a similar way to that of claim 17, so that claim 44 defines not only the air gap, but also the

two-dimensionally tapered inner surfaces, which are in no way taught or suggested by the cited prior art.

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

For all of these reasons, it is respectfully suggested that all of the claims should be in condition for allowance. A formal notice of allowance is hence respectfully requested.

If the Examiner believes that communications such as a telephone interview or email would facilitate disposal of this case, the undersigned respectfully encourages the Examiner to contact the undersigned.

Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with me concerning any

subject matter of this application by electronic mail (using the email address harris@schiplaw.com). I understand that a copy of these communications will be made of record in the application file.

Please charge any fees due in connection with this response, (other than any paid concurrently via EFS), to Deposit Account No. 50-4376, small entity.

Respectfully submitted,

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